



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,806	02/08/2007	Brent Carter	1567-6 PCT/US	4583
23869 7590 04/28/2009 HOFFMANN & BARON, LLP 6900 JERICHO TURNPIKE SYOSSET, NY 11791				
EXAMINER KELLER, MICHAEL J				
ART UNIT 3634		PAPER NUMBER		
MAIL DATE 04/28/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,806

Applicant(s)

CARTER ET AL.

Examiner

Michael J. Keller

Art Unit

3634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In the Reply filed 01/08/2009, claims 1 and 5 have been amended, claims 16 and 17 have been canceled, and new claims 22 and 23 have been added.

Claim Objections

Claim 13 is objected to because of the following informalities: Claim 13 recites "the drive motor" in line 3, but no drive motor is disclosed so there is improper antecedent basis. However, examiner understands the claim since there are no other claimed motors. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 and 18-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1 recites the limitation "the hand held remote controller or remote control transmitter" in lines 8-9. Does this refer to the "hand held controller or transmitter" recited in line 7?
5. Claim 9 recites "wherein the mobile trolley has a housing". There is insufficient antecedent basis for "the mobile trolley". A housing was previously recited in claim 1 line 2. Is the housing of claim 9 a new element? If so, it should be clearly distinguished from the housing recited in claim 1.

6. Claim 13 recites "an IR receiver" and "a microprocessor". An IR receiver was previously recited in claim 11, and a microprocessor was previously recited in claim 1 line 8. Are the IR receiver and microprocessor of claim 13 new elements? If so, they should be clearly distinguished from the IR receiver and microprocessor recited in claims 1 and 11.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-3, 9-12, 14, 15, 18-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 5,294,138) in view of Morrison (US 6,118,388).**

Regarding **claim 1**, Yang discloses a boom gate apparatus comprising: a portable trolley having at least one support wheel 112 and a housing 3, 4 supporting one or more traffic indicators 5; an elongate gate 60 mounted to the portable trolley; and actuating means (a motor; col. 5 lines 14-21) for moving the elongate gate from an upright non-operational position to a horizontal operational position. Yang does not disclose a microprocessor or a hand held remote controller or remote control transmitter.

Morrison discloses a portable trolley having at least one support wheel 2 and a housing 1 supporting one or more traffic indicators 6; and actuating means 7 for moving an arm mounted to the portable trolley; wherein the actuating means is controlled by a

hand held remote controller or remote control transmitter 14, and the housing contains a microprocessor (integrated circuits 20-24) which controls the actuating means and traffic indicators.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the boom gate apparatus of Yang with the microprocessor and remote control transmitter of Morrison, because the microprocessor is a compact and light weight controller, and the remote control allows an operator to control the gate indicator from a distance.

Regarding **claim 2**, Yang discloses wheels 112 and a handle 105.

Regarding **claim 3**, the elongate gate is a single elongate arm (Yang Fig. 1).

Regarding **claims 9 and 10**, Morrison discloses a radio frequency receiver 19 located within the housing (col. 3 lines 46-50).

Regarding **claims 11 and 12**, Examiner takes Official Notice that the use of infrared signals, as well as transparent windows to allow infrared signals to reach a receiver, were known in the art at the time of the invention.

All the claimed elements were known in the prior art as evidenced above, and one of ordinary skill in the art could have substituted an infrared transmitter and receiver for the radio transmitter and receiver of Morrison, using known methods with no change in their respective functions. Such a combination would have yielded predictable results to one of ordinary skill in the art at the time the invention was made, since the elements perform as expected and thus the results would be expected.

Regarding **claims 14 and 15**, see Yang, Summary of the Invention.

Regarding **claims 18-20**, Yang discloses providing a traffic control cart near the entrance of a school or company during rush hour. This would result in heavy pedestrian and vehicle traffic being controlled by the traffic control cart. The claimed method steps would be inevitably carried out by the apparatus of Yang and Morrison in this situation.

Regarding **claim 22**, Morrison discloses a remote control transmitter with separate buttons for controlling the traffic indicators and the actuating means (Fig. 3).

9. **Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 5,294,138) in view of Morrison (US 6,118,388), as applied to claim 1 above, and further in view of Baump et al. (US 3,975,861).**

Regarding **claim 4**, the combination of Yang and Morrison discloses a boom gate apparatus comprising an elongate gate driven by a motor, but does not disclose a belt or chain drive connecting the motor to the pivot arm.

Baump discloses a boom gate apparatus comprising an elongate arm 2 mounted on a pivot arm 54 coupled to an electric motor 14 by a belt drive (Fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the boom gate apparatus of Yang and Morrison with the belt drive of Baump, in order to translate the power of the motor to rotational motion of the gate.

Regarding **claim 7**, Yang discloses a pivot arm 620 normal to the gate 60 as shown in Fig. 8.

Regarding **claim 8**, Morrison discloses batteries 10, 11 which power the actuating means 7 and the traffic indicators (col. 3 lines 29-32).

10. **Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 5,294,138) in view of Morrison (US 6,118,388) and Baump et al. (US 3,975,861), as applied to claim 4 above, and further in view of Wagner et al. (US 4,681,479).**

Regarding **claim 5**, Yang, Morrison and Baump do not disclose a connection sleeve between the elongate gate and the pivot arm.

Wagner discloses an elongate gate 14 connected to a pivot arm 64 by a connection sleeve 66 (Fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the boom gate apparatus of Yang, Morrison and Baump with the connection sleeve of Wagner, in order to allow easy removal and replacement of the elongate gate.

Regarding **claim 6**, Examiner takes Official Notice that the use of a splined or keyway arrangement for connecting a shaft to a sleeve was known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use a splined or keyway arrangement for connecting the elongate gate to the sleeve in order to provide a secure and easily releasable connection.

11. **Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 5,294,138) in view of Morrison (US 6,118,388), as applied to claim 18 above, and further in view of Flores (US 5,442,878).**

The combination of Yang and Morrison does not disclose a second boom gate blocking an adjacent lane.

Flores discloses a pair of boom gates blocking two lanes of traffic which move simultaneously.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide a second boom gate in order to block traffic in two directions.

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 5,294,138) in view of Morrison (US 6,118,388), as applied to claim 18 above, and further in view of Armstrong (US 5,986,576).

Yang and Morrison do not disclose a buzzer sound.

Armstrong discloses a portable traffic control device comprising traffic indicators 11 (Fig. 1) and an audio signal device (col. 8 lines 64-67).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the boom gate apparatus of Yang and Morrison with the audio signal device of Armstrong, in order to create a more noticeable warning to vehicles and pedestrians.

Response to Arguments

13. Applicant's arguments with respect to claims 1-12, 14, 15 and 18-21 have been considered but are moot in view of the new ground(s) of rejection.

14. Applicant's arguments with respect to claim 13 have been fully considered and are persuasive. The rejection of claim 13 has been withdrawn.

Allowable Subject Matter

15. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Keller whose telephone number is 571-270-5219. The examiner can normally be reached on Monday - Friday 9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on 571-272-7069. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KATHERINE W MITCHELL/
Supervisory Patent Examiner, Art
Unit 3634

/M. J. K./
Examiner, Art Unit 3634